

**Remarks**

This Amendment is in response to the Office Action dated **July 13, 2010**. Claims 1-26 and 58-60 are pending in this application. The Office Action rejected claims 1, 5, 6, 12, 13, 15, 17-20, 59 and 60 under 35 USC § 103 over Nobuyoshi (US 5250069) in view of Ehr (US 6398709); rejected claims 2-4, 7-10 and 14 under 35 USC § 103 over Nobuyoshi in view of Ehr and further in view of Fulton (US 6074374); rejected claim 11 under 35 USC § 103 over Nobuyoshi in view of Ehr and Fulton and further in view of Follmer (US 5728065); rejected claims 21-24 under 35 USC § 103 over Nobuyoshi in view of Ehr and further in view of Imran (US 5766203); rejected claims 25 and 26 under 35 USC § 103 over Nobuyoshi in view of Ehr and further in view of Hamilton (US 6514228); and rejected claims 16 and 58 under 35 USC § 103 over Fulton in view of Nobuyoshi.

By this Amendment, claims 1, 4, 6 and 16 are amended for clarification purposes only. Support for the amendments can be found at least in Figures 2 and 10. Applicants reserve the right to prosecute any cancelled subject matter in a subsequent patent application claiming priority to the immediate application. Reconsideration in view of the above amendments and the following remarks is requested.

**Claim Rejections - Nobuyoshi**

The Office Action rejected, under 35 USC § 103, claims 1, 5, 6, 12, 13, 15, 17-20, 59 and 60 over Nobuyoshi in view of Ehr; claims 2-4, 7-10 and 14 over Nobuyoshi in view of Ehr and further in view of Fulton; claim 11 over Nobuyoshi in view of Ehr and Fulton and further in view of Follmer; claims 21-24 under 35 USC § 103 over Nobuyoshi in view of Ehr and further in view of Imran; and claims 25 and 26 over Nobuyoshi in view of Ehr and further in view of Hamilton.

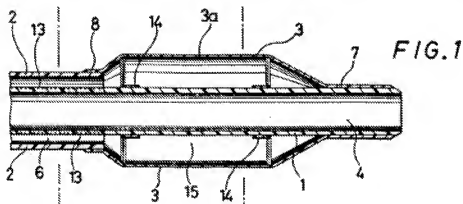
These rejections are traversed because the Office Action does not articulate a reason that would have prompted a person of ordinary skill in the art to modify the Nobuyoshi device as proposed by the Examiner.

Claim 1 has been amended for clarification purposes – the previously recited “recessed portions” have are now recited as “balloon storage recesses.”

Neither Nobuyoshi nor Ehr disclose or suggest balloon storage recesses in a

catheter tip as required by claim 1.

Nobuyoshi discloses a balloon catheter. See e.g. Figure 1, provided below.

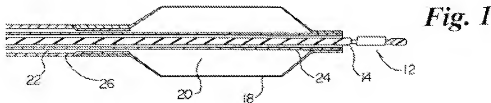


The Office Action admits that Nobuyoshi does not disclose or suggest the recessed portions/balloon storage recesses. See Office Action at page 2.

Citing to recesses in Ehr, the Office Action alleges that it would have been obvious “to have created recessed regions...on the catheter tip of Nobuyoshi.” The Office Action further alleges that it would have been obvious to specifically orient the recessed portions beneath the Nobuyoshi balloon cones. See Office Action at pages 2-3. These assertions are traversed.

A person of ordinary skill in the art would not have been motivated to modify the Nobuyoshi balloon catheter based upon the recesses shown in Ehr because the Ehr recesses are on a different portion of the device, specifically a support wire/guidewire. Ehr discloses a balloon catheter with parts similar to Nobuyoshi, and the Ehr balloon catheter does not include recesses. Ehr’s disclosure of recesses in a support wire would not motivate the modification to the Nobuyoshi balloon catheter proposed in the rejection.

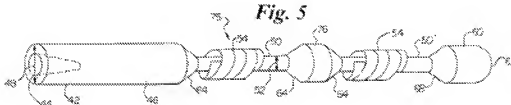
Ehr teaches a balloon catheter with a distal radiation source 12. See Figure 1, provided below, and column 2, lines 53-62.



A person of ordinary skill in the art would recognize that the Ehr balloon catheter, having an inflation lumen 22 for the balloon 20 oriented between an inner tube 24 and an outer

tube 26 – see column 2, lines 63-67, is similar in construction to the Nobuyoshi balloon catheter.

An embodiment of Ehr's distal radiation source 12 is shown in Figure 5, provided below. Ehr teaches the use of recesses 50, 50' in the elongated support wire 46, located under the radioactive ribbons 54.



The use of recesses in an elongated support wire 46 (e.g. guidewire) would not have motivated a person of ordinary skill in the art to modify the Nobuyoshi balloon catheter as asserted by the Examiner. In fact, Ehr discloses a balloon catheter similar to Nobuyoshi, but does not disclose or suggest recesses in the balloon catheter.

Thus, the applied references do not disclose or suggest the balloon storage recesses required by claim 1.

An obviousness rejection requires a suggestion of all limitations in a claim. See *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003).

Further, claim 1 requires the recesses to be located beneath the balloon cones. The claimed configuration is not disclosed or suggested by the applied references. The Office Action asserts, "One having ordinary skill in the art would have recognized the recessed portions could be oriented beneath the conical portions." See Office Action at page 3. The rejection does not cite to any prior art reference that teaches the concept of placing recesses under the balloon cones, or any prior art motivation to use recesses as required by claim 1. The Examiner's proposal to reach the claimed configuration amounts to a gleaning of information from Applicants' disclosure using impermissible hindsight.

In view of the forgoing remarks, Applicants assert that a *prima facie* case of unpatentability has not been presented against the claims rejected over a primary combination of Nobuyoshi and Ehr.

With respect to the additional references applied to reject various dependent claims, none remedy the deficiencies in the primary combination of Nobuyoshi and Ehr discussed

above. Applicants request withdrawal of all rejections under 35 USC § 103 that apply Nobuyoshi in view of Ehr.

### Claim Rejections - Fulton

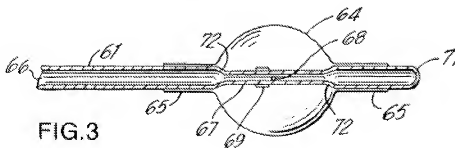
The Office Action rejected claims 16 and 58 under 35 USC § 103 over Fulton in view of Nobuyoshi. These rejections are traversed.

Claim 16 has been amended for clarification purposes and recites, “a catheter shaft having...a distal end; a catheter tip having a proximal end...said catheter tip comprising a first region and a second region...said catheter tip proximal end being coupled to said catheter shaft distal end at a coupling located proximal to said inflation balloon...wherein said second region comprises entrained stiffening fibers.”

Thus, claim 16 requires a coupling between the catheter shaft and catheter tip to be located proximal to the balloon, and requires the catheter tip to comprise entrained stiffening fibers. Thus, entrained stiffening fibers are located distal to the coupling.

The applied references do not disclose or suggest entrained stiffening fibers located distal to a coupling between the catheter shaft and catheter tip.

The rejection characterizes the recessed portion of the Fulton catheter as the claimed “first region,” and characterizes the main shaft portion proximal to the recessed portion as the claimed “second region.” See Office Action at page 5 and Fulton Figure 3, provided below.



The rejection proposes to add a rigidity imparting member 13 as disclosed by Nobuyoshi to the second region (i.e. the main shaft portion proximal to the recessed portion) of the Fulton catheter. See Office Action at page 5 and Nobuyoshi Figure 1 below.



**Conclusion**

Based on at least the foregoing amendments and remarks, Applicants respectfully submit this application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-26 and 58-60 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

VIDAS, ARRETT & STEINKRAUS

Date: October 12, 2010

By: /Jeremy G Laabs/  
Jeremy G. Laabs  
Registration No.: 53170

6640 Shady Oak Rd., Suite 400  
Eden Prairie, MN 55344-7834  
Telephone: (952) 563-3000  
Facsimile: (952) 563-3001